

REMARKS

In response to the action of September 6, 2007, applicant asks that all claims be allowed in view of the amendments to the claims and the following remarks. This amendment is being filed concurrently with a Request for Continued Examination.

Claims 1-3, 5-9, 11-15, 17-21, and 23-32 are now pending, of which claims 25-28 have been withdrawn. Of the claims under consideration, claims 1, 7, 13 and 19 are independent. Claims 1, 2, 7, 8, 13, 14, 19 and 20 have been amended, and claims 29-32 have been added. Support for these amendments and the new claims may be found in the application at, for example, Figs. 1 and 2. No new matter has been introduced.

Claims 1, 3, 6, 7, 9, 12, 13, 15, 18, 19, 21 and 24 have been rejected as unpatentable over U.S. Patent Publication No. 2001/0006827(Yamazaki) in view of U.S. Patent No. 6,641,674 (Peng) and Japanese Patent 09-143697 (Hirata). Applicant requests reconsideration and withdrawal of the rejection because neither Yamazaki, Peng, Hirata, nor any proper combination of the references describes or suggests the subject matter of amended independent claims 1, 7, 13 and 19, as described more fully below.

Claim 1 is directed toward an apparatus for forming a film. As amended, the apparatus includes a load chamber, a conveyance chamber connected to the load chamber, a film formation chamber connected to the conveyance chamber, and an installation chamber connected to the film formation chamber. The installation chamber includes means adapted to move a first evaporation source, means adapted to move a second evaporation source, and means adapted to move a third evaporation source. Each of the means adapted to move the first, second, and third evaporation sources is configured to move in an X direction, a Y direction, and a Z direction in the film formation chamber. The installation chamber includes a mechanism for setting an evaporation material in each of the first, second, and third evaporation sources in the installation chamber.

The action indicates that Yamazaki and Peng fail to disclose that each of the first, second and third evaporation sources are movable in an X direction, a Y direction, and a Z direction. For this feature, the action relies on Hirata. See action at pages 3-4. Hirata discloses "crucibles 10 and 11 are vertically and horizontally moved by using vertical actuators 18 and 19 and

horizontal actuators 14 and 15...." Hirata at Abstract (referring to Figs. 1, 2, 4 and 5). As such, Hirata discloses vertical and horizontal movement.

In contrast with claim 1, Yamazaki, Peng and Hirata, alone or in any proper combination, do not describe or suggest an installation chamber connected to the film formation chamber, and where the installation chamber includes means adapted to move a first evaporation source, means adapted to move a second evaporation source, and means adapted to move a third evaporation source. Rather, Hirata discloses a device in which "crucibles 10 and 11 are vertically and horizontally moved by using vertical actuators 18 and 19 and horizontal actuators 14 and 15, respectively to positively and forcedly change the vapor density distributions of materials 12 and 13 to be evaporated and the region which is located beneath the substrate 1 and in which the vapors of the materials are mixed." Hirata at Abstract (referring to Figs. 1,2, 4 and 5). As such, while Hirata may disclose means for moving an evaporation source in the film formation chamber, Hirata does not describe or suggest doing so in three directions in the manner recited in claim 1. Yamazaki is said to disclose means for moving an evaporation source in the film formation chamber in Figs. 2A and 2B. See action at pages 2-3 (citing Yamazaki at Figs. 2A and 2B). Peng is said to disclose evaporation sources in a single chamber where each of the sources is provided with means that moves the sources for the purpose of controlling the distribution of evaporated particles and for the purpose of controlling the deposition rate. See action at page 3 (citing Peng at col. 3, rows 6-29).

Neither Yamazaki, Peng, Hirata, nor any proper combination of the references describes or suggests an installation chamber connected to the film formation chamber, where the installation chamber includes means adapted to move a first evaporation source, means adapted to move a second evaporation source, and means adapted to move a third evaporation source, as recited by amended claim 1.

Yamazaki discloses a means for moving an evaporation source 104 in one direction (i.e., in an x-direction). See Yamazaki at Figs. 1A and 1B, and paragraph 14 (stating "a mechanism for moving the evaporation source 104 in a direction shown by an arrow (a direction perpendicular to the longitudinal direction of the evaporation source 104) is prepared"). As noted above, Hirata discloses a means (i.e., horizontal actuator 14) for moving a crucible 10 horizontally and a means (i.e., vertical actuator 18) for moving the crucible 10 vertically. See

Hirata at abstract and Figs. 1, 2, 4 and 5. Peng also appears to disclose a means 226 for rotating an evaporation boat 224. See Peng at col. 3, lines 49-51 (“During deposition, the moving arm 226 can rotate about the Z-axis from 0° to 360° to allow a uniform deposition of the thin film.”); see, e.g., Peng at col. 3, lines 30-55 and FIG. 2B. As such, Yamazaki, Hirata and Peng each only disclose one means capable of moving an evaporation source in at most two directions. Hence, none of Yamazaki, Hirata or Peng disclose a means adapted to move in the three directions recited in claim 1.

Therefore, Yamazaki, Peng, Hirata, and any proper combination of the references does not describe or suggest that each of the means adapted to move the first, second, and third evaporation sources is configured to move in an X direction, a Y direction, and a Z direction in the film formation chamber, as recited by amended claim 1.

Accordingly, Yamazaki, Peng and Hirata, alone or in any proper combination, do not describe or suggest that the subject matter recited by amended claim 1. Therefore, applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims 3 and 6.

Claims 7, 13 and 19 each recite features similar to those discussed above with respect to claim 1. Accordingly, for the reasons discussed above with respect to claim 1, applicant requests reconsideration and withdrawal of the rejection of independent claims 7, 13 and 19, and their respective dependent claims 9, 12, 15, 18, 21 and 24.

Claims 2, 5, 8, 11, 14, 17, 20 and 23, which each depend from one of independent claims 1, 7, 13 and 19, have been rejected as unpatentable over Yamazaki in view of Peng, Hirata and Yamamoto (U.S. Patent No. 6,179,923). Yamamoto, which is cited in the action for disclosing an installation chamber connected to the film formation chamber connected to evacuating/exhausting means, and with a mechanism for setting an evaporation material in the evaporation sources, does not remedy the failure of Yamazaki, Peng and Hirata to describe or suggest the subject matter of the independent claims. Accordingly, applicant requests reconsideration and withdrawal of the rejections of claims 2, 5, 8, 11, 14, 17, 20 and 23.

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Each of new claims 29-32 depends from a respective one of independent claims 1, 7, 13 and 19. At least for the reason of that dependency and the reasons noted above with respect to independent claims 1, 7, 13 and 19, applicant submits that claims 29-32 are allowable.

Applicant submits that all claims are in condition for allowance.

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The fee in the amount of \$810.00 in payment of the Request for Continued Examination fee is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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